

REMARKS

Claims 2–3, 5, 10–11, and 13 remain pending in this application. Claims 2, 3, and 13 have been amended. Applicant reserves the right to pursue the original claims in this and other applications.

Claims 2-3, 5, 10-11 and 13 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Publication No. 2002/0136121 to Salmonsens et al. (“Salmonsens”). The rejection is respectfully traversed.

Claim 2 recites “measuring a recording state of the optical data recording medium immediately before the interruption . . . the recording state being measured in a seek operation performed when starting the next recording operation after the interrupted recording operation.” The present application teaches measuring the recording state during a seek for recording operation, thereby shortening the time period for recording interruptions and shortening the overall recording time. ([0128–0133]). As shown in FIG. 5, the recording state is measured during the waiting period for setting the linear velocity of the optical disk 10 until the RPM reaches the object RPM. Instead of performing a single seek operation, Salmonsens teaches performing two seek operations, a first seek performed after a trigger has sent a signal to find the previously written data for measuring the writing quality, and a second seek performed to find the starting point to restart writing. (FIG. 4; [0051, 0053, 0054]). Thus, Salmonsens does not disclose the above-mentioned limitation of measuring the recording state in a seek operation performed when starting the next recording operation.

Claims 3, 10 and 13 recite a similar limitation to the limitation of claim 2 described above and, therefore, are allowable over Salmonsens for at least the reasons provided above with regard to claim 2, as well as on their own merits.

Furthermore, with respect to claim 10, the claim recites “wherein in the step of measuring . . . a setting being made so that a reading quality is an optimum during the measurement of the recording quality, and the setting being made so that the recording quality is an optimum after

the measurement of the recording quality.” The Office Action points to Salmonsen paragraphs 0030, 0032, 0045 and FIG. 4 for support of the above-recited limitation. However, the cited paragraphs and FIG. 4 do not teach making two settings, one setting to optimize the reading quality when measuring the recording state of the optical data recording medium, and another setting to optimize the recording quality for the next recording operation. Rather, block 456 in FIG. 4 shows that the laser power is set only once according to the measured writing quality.

Claim 5 recites “in the step of correcting, a change of the recording power in each correction is restricted to be less than a predetermined value.” The Office Action asserts that “it is inherent that the change of the recording power is restricted to be less than a predetermined value, so that data can be recorded at highest quality” and points to Salmonsen paragraphs 0054 and 0055 for support of this assertion. (Page 5).

Applicant respectfully submits that the cited paragraphs do not expressly nor inherently disclose the feature recited in claim 5. Paragraph 0054 discloses adjusting the laser power “based on the writing quality, as determined by the data previously written.” Notably, paragraph 0054 does not teach restricting the power adjustment to be less than a predetermined value. Applicant’s application, however, teaches that if the recording state of the optical data is measured in regions having defects, the measured values may be greatly different from actual values in regions having no defects. If the measured values is then directly used to correct the power, the result will be improper, and the quality will be degraded. ([0134]. Salmonsen, on the contrary, discloses that the measured writing quality is directly used to correct the laser power. Thus, Salmonsen teaches precisely what the Applicant’s application teaches not to do.

Paragraph 0055 of Salmonsen, likewise, does not expressly nor inherently disclose the feature recited in claim 5. Paragraph 0055 discloses inserting “a secondary stop some rotations later” to evaluate whether the adjusted power is an improvement. In other words, Salmonsen teaches the use of two interruptions, one interruption for adjusting the laser power based on the measured writing quality, and another interruption for evaluating the adjustment made during the first interruption. In contrast, the present application recognizes that the laser temperature and the

sensitivity fluctuation of the recording film of the optical disk do not change drastically in a recording region whose size is properly set. ([0135]). For that reason, Applicant's application teaches a single interruption to correct the power based on the measured recording state by restricting the correction to be less than a predetermined value.

Claims 2, 3, 5, and 10 further recite "interrupting an operation of recording data in an optical data recording medium when a predetermined amount of data to cover a specified length along the radial direction of the optical disk is continuously recorded." Claim 13 recites a similar limitation to the above-recited limitation. The Office Action asserts "the amount of data recorded by Salmonsens is indeed 'predetermined' since the amount of data recorded is the result of the elapse of a predetermined time period. Certainly, the interval set by the timer is not random. Hence, the amount of data recorded during each interval is also not random but rather it is predetermined by the time period." (Page 8). Applicant respectfully disagrees.

In an optical recording device, a trigger based on a predetermined time period is not equivalent to a trigger based on a predetermined amount of data. A device recording to an optical disk may run for a predetermined time period without recording any data. If the disk, for example, has an extended gap between marks, no data is recorded, yet a time-based trigger will cause an interruption and an evaluation of the writing quality. On the other hand, a trigger based on a "predetermined amount of data" would not cause an interruption and an evaluation. Likewise, in a segment of the disk having many marks, a large amount of data may be recorded in the same predetermined time period. Thus, during any predetermined amount of time, it is not necessarily the case that a "predetermined amount of data" is recorded. To the contrary, the amount of data recorded during any predetermined amount of time depends upon the circumstances.

Furthermore, as noted in the present application, the length of time to record a predetermined amount of data varies in Constant Liner Velocity (CLV) recording depending upon the location of the optical pickup on the disk: "In the case of CLV recording . . . the amounts of data recorded in the inner area and in the peripheral area of the optical disk 10 are different even if the same time information is recorded." ([0108]). Thus, in CLV recording, while a predetermined

amount of data remains the same, the amount of time it takes to record the predetermined amount of data changes. Thus, it is clear that a trigger based on a predetermined time period is not equivalent to a trigger based on a predetermined amount of data.

Claim 11 depends from claim 10, and therefore is patentable over Salmonsens for at least the reasons mentioned above with regard to claim 10. Accordingly, Applicant respectfully requests the rejection be withdrawn and the claims allowed.

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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